

PATENT



13162

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Kunkel et al. Examiner: Unassigned  
Serial No.: 09/941,138 Group Art Unit: Unassigned  
Filed: 8/28/2001  
For: Methods and Compositions for Bi-directional Polymorphism Detection

Kalow & Springut LLP  
488 Madison Avenue, 19th Floor  
New York, New York 10022

January 23, 2002

Commissioner for Patents  
Washington, D.C. 20231

**INFORMATION DISCLOSURE STATEMENT**

Sir:

Applicants submit the following disclosure in accordance with the provisions of 37 CFR 1.97 and 1.98.

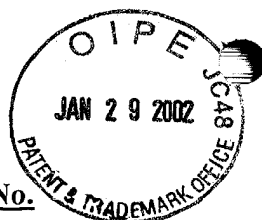
**I. U.S. PATENT DOCUMENTS**

<b><u>Patent No.</u></b>	<b><u>Date Issued</u></b>	<b><u>Title</u></b>
5,427,911 to Ruano	June 27, 1995	Coupled amplification and sequencing of DNA
5,679,524 to Nikiforov et al.	October 21, 1997	Ligase/polymerase mediated genetic bit analysis of single nucleotide polymorphisms and its use in genetic analysis
5,846,710 to Bajaj	December 8, 1998	Method for the detection of genetic diseases and gene sequence variations by single nucleotide primer extension
5,856,092 to Dale et al.	January 5, 1999	Detection of a nucleic acid sequence or a change therein

**Certificate of Mailing Under 37 C.F.R. 1.9**

I hereby declare that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to:  
Assistant Commissioner for Patents, Washington, D.C.

Date: 1/23/02 Name: J. Colwell



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Information Disclosure Statement - page 2

<u>Patent No.</u>	<u>Date Issued</u>	<u>Title</u>
5,888,819 to Goelet et al.	March 30, 1999	Method for determining nucleotide identity through primer extension
5,885,775 to Haff et al.	March 23, 1999	Methods for determining sequences information in polynucleotides using mass spectrometry
5,952,174 to Nikiforov et al.	September 14, 1999	Ligase/polymerase-mediated genetic bit analysis of single nucleotide polymorphisms and its use in genetic analysis
5,965,363 to Monforte et al.	October 12, 1999	Methods of preparing nucleic acids for mass spectrometric analysis
6,004,744 to Goelet et al.	December 21, 1999	Method for determining nucleotide identity through extension of immobilized primer
6,013,431 to Söderlund et al.	January 11, 2000	Method for determining specific nucleotide variations by primer extension in the presence of mixture of labeled nucleotides and terminators
6,013,449 to Hacia et al.	January 11, 2000	Probe-based analysis of heterozygous mutations using two-color labeling
6,074,831 to Yakhini et al.	June 13, 2000	Partitioning of polymorphic DNAs
6,270,973 B1 to Lewis et al.	August 7, 2001	Multiplex method for nucleic acid detection
6,110,709 to Ausubel et al.	August 29, 2000	Cleaved amplified modified polymorphic sequence detection methods



Patent

Date Issued

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Title

6,127,121 to  
Meyer, Jr. et al.

October 3, 2000

Oligonucleotides containing  
pyrazolo[3,4-D]pyrimidines for  
hybridization and mismatch  
discrimination

6,150,112 to  
Weissman et al.

November 21, 2000

Methods for identifying DNA  
sequences for use in comparison  
of DNA samples by their lack of  
polymorphism using Y shape  
adaptors

6,177,249 B1 to  
Kwok et al.

January 23, 2001

Method for nucleic acid analysis  
using fluorescence resonance  
energy transfer

6,197,557 B1 to  
Makarov et al.

March 6, 2001

Compositions and methods for  
analysis of nucleic acids

6,221,592 B1 to  
Schwartz et al.

April 24, 2001

Computer-based methods and  
systems for sequencing of  
individual nucleic acid molecules

6,235,471 B1 to  
Knapp et al.

May 22, 2001

Closed-loop biochemical  
analyzers

6,235,480 B1 to  
Shultz et al.

May 22, 2001

Detection of nucleic acid hybrids

6,248,521 B1 to  
Van Ness et al.

June 19, 2001

Amplification and other  
enzymatic reactions performed on  
nucleic acid arrays

6,251,639 B1 to  
Kurn

June 26, 2001

Methods and compositions for  
linear isothermal amplification of  
polynucleotide sequences, using a  
RNA-DNA composite primer

6,268,146 B1 to  
Shultz et al.

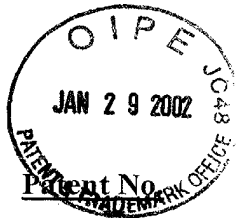
July 31, 2001

Analytical methods and materials  
for nucleic acid detection

6,268,147 B1 to  
Beattie et al.

July 31, 2001

Nucleic acid analysis using  
sequence-targeted tandem  
hybridization



Patent No.  
6,270,974 B1 to  
Shultz et al.

Date Issued  
August 7, 2001

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Docket No.: 13162  
Information Disclosure Statement - page 4  
Title  
Exogenous nucleic acid detection

## II. NON PATENT PUBLICATIONS

Chen et al., Fluorescence Polarization in Homogeneous Nucleic Acid Analysis, *Genome Research*, Vol. 9, pp.492-498 (1999).

Chen et al., Fluorescence energy transfer detection as a homogeneous DNA diagnostic method, *Proc. Natl. Acad. Sci.*, Vol. 94, pp.10756-10761 (1997).

Wang et al., Large-Scale Identification, Mapping, and Genotyping of Single-Nucleotide Polymorphisms in the Human Genome, *Science*, Vol. 280 pp.1077-1082 (1998).

Landegren et al., Reading Bits of Genetic Information: Methods for Single-Nucleotide Polymorphism Analysis, *Genome Research*, Vol. 8, pp. 769-776 (1998).

Beier, M. et al., Production by quantitative photolithographic synthesis of individually quality checked DNA microarrays, *Nucleic Acids Research*, Vol. 28, No. 4 e11 (2000).

Fan et al., Parallel Genotyping of Human SNPs Using Generic High-density Oligonucleotide Tag Arrays, *Genome Research*, Vol. 10, pp. 853-860 (2000).

Hirschhorn et al., SBE-TAGS: An array-based method for efficient single-nucleotide polymorphism genotyping, *Proc. Natl. Acad. Sci.*, Vol. 97 pp.12164-12169 (2000).

Sauer et al., A novel procedure for efficient genotyping of single nucleotide polymorphisms, *Nucleic Acids Research*, Vol. 28, No. 5 e13 (2000).

Germer et al., Single-Tube Genotyping without Oligonucleotide Probes, *Genome Research*, Vol. 9, pp. 72-78 (1999).

Liu et al., Overlapping PCR for Bidirectional PCR amplification of specific alleles: A rapid one-tube method for simultaneously differentiating homozygotes and heterozygotes, *Genome Research*, Vol. 7, pp. 389-398 (1997).

Ellis, M., "Spot-On" SNP Genotyping, *Genome Research*, vol.10 pp.895-897 (2000).


Waterfall et al., Single tube genotyping of sickle cell anemia using PCR-based SNP analysis, *Nucleic Acids Research*, vol. 29, No. 23 e119 (2001).

The items listed above are identified on Form PTO 1449, which is submitted with this statement. A copy of each of the items identified above is also submitted with this statement.

Applicants take no position on whether or not any item cited above and listed on Form PTO 1449 constitutes prior art against the subject application under any particular provision of Title 35 of the United States Code.

Because this Information Disclosure Statement is being filed prior to the first office action, Applicants submit that no fee is necessary. If a fee is deemed necessary, please charge payment to deposit account no. 11-0171.

Respectfully submitted,



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